

633.2009773

F74

2003

NOTICE: Return or renew all Library Materials! The *Minimum Fee* for each Lost Book is \$50.00.

The person charging this material is responsible for its return to the library from which it was withdrawn on or before the **Latest Date** stamped below.

Theft, mutilation, and underlining of books are reasons for disciplinary action and may result in dismissal from the University.
To renew call Telephone Center, 333-8400

UNIVERSITY OF ILLINOIS LIBRARY AT URBANA-CHAMPAIGN

L161--O-1096

Forage Crop Variety Trials in Illinois-2003

633.2009773
F74
2003



Crop Sciences Special Report 2003-03

Performance Information Provided by

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

Department of Crop Sciences

<http://vt.cropsci.uiuc.edu/>



College of Agricultural, Consumer and Environmental Sciences

633.2009773
F174
2002

ACES

CONTENTS

TEST PROGRAM	2
PERFORMANCE DATA	2
SUGGESTIONS FOR COMPARING ENTRIES	2
2003 TEST FIELDS	3
2003 GROWING SEASON RAINFALL	3
SOURCES OF SEED	3
2003 TEST FIELD LOCATIONS	4
2003 ENTRIES	5
DISEASE AND FALL DORMANCY RATINGS	7
RESULTS OF VARIETY TESTS	9
ALFALFA TRIALS	
Freeport	9-11
Urbana	12-13
Belleville	14-15
GRASS TRIALS	
Freeport	16
Urbana	16-17

DATA ALSO AVAILABLE AT: <http://vt.cropsci.uiuc.edu>

This circular was prepared by D. K. Joos, Research Specialist; R. W. Esgar, Agronomist; B. R. Henry Research Specialist; and C.A. Smyth, Computer and Statistics Research Specialist.

PERFORMANCE OF COMMERCIAL FORAGES IN ILLINOIS

THE UNIVERSITY OF ILLINOIS commercial forage testing program has been testing public and private forages for over 52 years. The initial purpose was to evaluate the many public varieties available, today public varieties are far outnumbered by private varieties. This year 41 seed companies are participating in the 2003 trials.

The purpose of this commercial forage testing program is to provide unbiased, objective, and accurate testing of all varieties entered. The tests are conducted on as uniform a soil as is available in the testing area. Small plots are used to reduce the chance of soil and climatic variations occurring between one variety plot and another.

The results of these tests should help you judge the merits of varieties in comparison with other private and public varieties. Because your soils and management may differ from those of the test location, you may wish to plant variety strips of the higher-performing varieties on your farm. The results printed in this circular should help you decide which varieties to try.

TEST PROGRAM

Selection of entries Forage producers in Illinois and surrounding states were invited to enter varieties in the 2003 Illinois forage performance trials. Entrants were required to provide seed in a commercially available container to the University of Wisconsin for distribution to other public testing programs. This is to ensure performance is not affected by seed source and to avoid each entrant the cost of sending a commercial bag of seed to each program.

To help finance the testing program, a fee of \$450 per location per 4 years was charged for each variety entered by the seed producer. Most of these varieties are commercially available, but some experimental varieties were also entered. A total of 115 varieties were tested in 2003.

Number and location of tests In 2003, tests were conducted at 3 locations throughout the state (see map on pg. 4). These sites represent the major soils and dairy producing areas of the state.

Field plot design Entries of each test were replicated four times in a randomized complete block. Plot size was 23 feet by 3 feet and end trimmed at each harvest to obtain a 19 foot long plot.

Fertility and weed control All test locations were managed at a high level of fertility for each crop. Herbicides were used at all test locations for weed control.

Method of planting and harvesting All trials were seeded with a five row seeder modified to accommodate small plot seeding. Plots were seeded at 18 pounds per acre. Harvests were taken with a custom built flail chopper equipped with electronic data gathering equipment.

PERFORMANCE DATA

Yield Forage yield is reported in tons dry matter per acre. Yields were converted to a dry matter basis by estimating percent moisture within each trial.

SUGGESTIONS FOR COMPARING ENTRIES

It is impossible to obtain an exact measure of performance when conducting any test of plant material. Harvesting efficiency may vary, soils may not be uniform, and many other conditions may produce variability. Results of repeated tests are more reliable than those of a single year or a single-strip test. When one variety consistently out yields another at several test locations and over several years of testing, the chances are good that this difference is real and should be considered in selecting a variety.

As an aid in comparing alfalfa varieties within a single trial, certain statistical tests have been devised. One of these tests, the least significant difference (L.S.D.), when used in the manner suggested by Carmer and Swanson¹ is quite simple to apply and is more appropriate than most other tests. When two entries are compared and the difference between them is greater than the tabulated L.S.D. value, the entries are judged to be "significantly different."

The L.S.D. is a number expressed in tons dry matter per acre and presented following the average yield. An L.S.D. of 5% is shown. Add the L.S.D. value to the trial mean. Every variety with a greater yield than the resulting number is 'statistically better than average. Consider the merits of the varieties in this group when making varietal selections.

To make the best use of the information presented in this circular and to avoid any misunderstanding or misrepresentation of it, the reader should consider an additional caution about comparing entries. Readers who compare entries in different trials should be extremely careful, because no statistical tests are presented for that purpose. Readers should note that the difference between a single entry's performance at one location and its performance at another is caused primarily by environmental effects and random variability. Furthermore, the difference between the performance of entry A in one trial and the performance of entry B in another trial is the result not only of environmental effects and random variability, but of genetic effects as well.

¹Carmer, S.G. and M.R. Swanson. "An Evaluation of Ten Pairwise Multiple Comparison Procedures by Monte Carlo Methods." *Journal of American Statistical Association* 68:66-74. 1983.

2003 TEST FIELDS

Freeport

Location: Stephenson county, north of Freeport, north central Illinois.

Cooperators: Dave and Mike Macomber.

Urbana

Location: University of Illinois, Crop Sciences Research and Education Center, Champaign county, east central Illinois.

Cooperators: Robert Dunker; agronomist, Mike Kleiss; farm foreman.

Belleville

Location: Southern Illinois University Research Center, east of Belleville, St. Clair county.

Cooperators: Ed Varsa; research director; Ron Krausz; field manager.

2003 GROWING SEASON RAINFALL

Location	May	June	July	Aug	Sept
Freeport	6.10	2.50	4.10	0.80	3.50
Urbana	3.59	3.04	6.98	6.27	4.07
Belleville	4.78	8.29	1.93	4.19	5.03

SOURCES OF SEED

Ag Venture, Ag Venture, Inc., P.O. Box 29, Kentland, IN 47951
AgriPro, AgriPro Seeds, Inc., R.R. 2, Hwy 30 East, Ames, IA 50010

Allied Seed, Allied Seed, L.L.C., 1108 Hilldale Dr., Macon, MO 63552

America's Alfalfa, ABI Alfalfa, 2316 259th St., Ames, IA 50014

Ampac, Ampac Seed Co., P.O. Box 318, Tangent, OR 97389

Bio Plant, Bio Plant Research, P.O. Box 320, Camp Point, IL 62320

Callahan, Callahan Seeds, 1122 East 169th St., P.O. Box 367, Westfield, IN 46074-0367

Cargill, Cargill Hybrid Seeds, P.O. Box 5645, Minneapolis, MN 55440

Cebeco, Cebeco International seeds inc., P.O. Box 229 / 175 W. "H" Street, Halsey, OR 97333

Dairyland, Dairyland Seed Co., P.O. Box 958, West Bend, WI 53095

Dekalb, Monsanto, 3100 Sycamore Road, Dekalb, IL 60115

Delong, The Delong Co., P.O. Box 522, Clinton, WI 53525

DLF-Jenks, DLF-Jenks, P.O. Box 216, Albany, OR 97321

Emerald, Emerald Commodities Inc., 32041 Cartney Dr. Harrisburg, OR 97466

FFR, FFR Cooperative, 4112 E. St. Rd. 225, West Lafayette, IN 47906

Garst, Garst Seed Co., 2369-330th St, P.O. Box 500, Slater, IA 50244

Geertson, Geertson Seed Farms, 1665 Burroughs Rd., Adrian, OR 98901

George Keller, George Keller & Sons Co., P.O. Box 490, 909 Maine St., Quincy, IL 62306-0490

Golden Harvest, Golden Harvest Seed Co., 27420 137th Ave. N., Cordova, IL 61242

Grassland West, Grassland West Co., 908 Port Dr., Clarkston, WA 99403

Growmark, Growmark Inc., 1701 Towanda Ave., Bloomington, IL 61701

Improved Forages, Improved Forages, P.O. Box 230, Lake Oswego, OR 97034

Int'l Seeds, International Seeds, Inc., P.O. Box 168, Halsey, OR 98348

Jenks Seed, Jenks Seed Connection, 34058 Oakville Road, P.O. Box 1468, Albany, OR 98321

Journey Brand, Fotanelle Hybrids, 10981 8th St., Fontanelle, NE 68044

Kaltenberg, Kaltenberg Seed Farms, P. O. Box 278, Waunakee, WI 53597

Kitchen, Kitchen Seed Company, Inc., P.O. Box 286, Arthur, IL 61911

Lewis, Lewis Seed Co., 33820 Linn-West Dr. Shedd, OR 97377

MBS, MBS, 225 West First St., Story City, IA 50248

Mountain View Seeds, Mountain View Seeds, 8955 Sunny View Rd. NE, Salem, OR 97305

Ottillie, Ottillie RO Seed, 1462 Sanford Ave., Marshalltown, IA 50158

Pennington Seed, Pennington Seed, Inc. of Oregon, Lebanon, OR 98355

PGI, PGI Alfalfa, Inc., 225 West 1st St., Story City, IA 50248

Pickseed, Pickseed Canada Inc., 1 Greenfield Rd., Lindsay, Ont. Canada, K9V453

Pioneer, Pioneer Hi-bred International, Inc., 14171 Carole Dr., Bloomington, IL 61704

Power Seeds, 658 Larner Line, RR 1, Fraserville, Ont. Canada, K0L 1V0

Public Varieties, Various sources

Pyne Gould Guinness, Pyne Gould Guinness, 411 Blenheim Rd., Christchurch, New Zealand 8015

Schultz, Schultz Turf and Forage Seed, P.O. Box 1623, Effingham, IL 62401

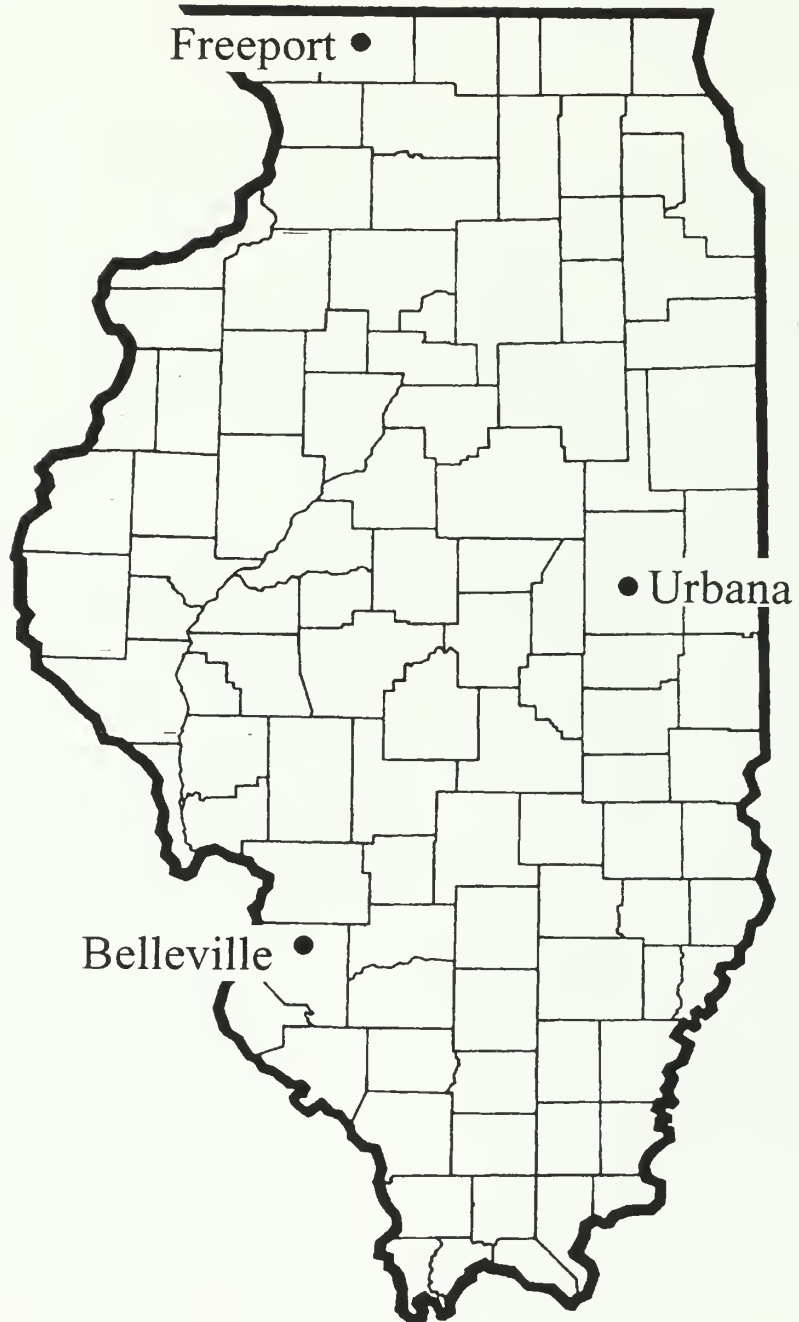
Seed Research, Seed Research of Oregon, 27630 Llewellyn Rd. Corvallis, OR 97333

Smith Seed, Smith Seed Services, P.O. Box 288, Halsey OR 97348

United Suppliers, United Suppliers Inc., P.O. Box 538, Eldora, IA 50627

W-L Research, W-L Research, Inc., P.O. Box 8112, Madiosn, WI 53708

2003 FORAGE LOCATIONS



2003 Alfalfa and Forage Grass Entries

* experimental Marketer	Brand-Variety	Freeport				Urbana			Belleville
		00	01	02	03	00	01	02	00 03
GARST	631	x				x	x		
GARST	6410	x	x			x	x		
JOURNEY BRAND	204 HYBRID			x					
KALTENBERG	4 TRAFFIC	x							
FFR	4R37*								x
PIONEER	53H81					x			x
PIONEER	53Q60	x				x	x		x
PIONEER	54H91		x	x					x
PIONEER	54V46			x					x
PIONEER	54V54	x	x			x	x		x
GARST	6325			x					
GARST	6400HT			x					
GARST	6420		x	x					
GARST	645-II	x				x	x		
KITCHEN	797 LHR						x		
GEERSTON	9702	x							
MBS	A 30-06	x							x
GEORGE KELLER	ABSOLUTE BRAND	x							x
GEORGE KELLER	ABSOLUTE BRAND GZ .		x			x			x x
GEORGE KELLER	ABSOLUTE BRAND II ..		x			x			
GEORGE KELLER	ABSOLUTE III BRAND .			x					x
BIO PLANT RESEARCH	ABUNDANCE	x		x		x			
AMERICA'S ALFALFA	AMERISTAND 403T	x				x			
AG VENTURE	AV 3420	x							
CALLAHAN	AWESOME								x
W-L RESEARCH	C 416*								x
AGRIPRO	DEFENSE +EV								x
DEKALB	DK 131 HG								x
DEKALB	DK 134	x							
DEKALB	DK 140								x
DEKALB	DK 141								x
DEKALB	DKA 42-15	x				x			
DEKALB	DKA33-16			x					
DARIYLAND	DS320*			x					
DARIYLAND	DS321*			x					
DARIYLAND	DS322*			x					
DARIYLAND	DS323*			x					
KITCHEN	EXTENDER II					x			
AGRIPRO	FEAST +EV		x	x					x
CARGILL	FQ 315								x
ALLIED SEED	FSG 505								x
GOLDEN HARVEST	GH 700	x							
BIO PLANT RESEARCH	GOLD LEAF	x				x			
DARIYLAND	HYBRIFORCE-400	x				x			
DARIYLAND	HYBRIFORCE-420 WET			x					x
SCHULTZ	INTRIGUE					x			
DARIYLAND	MAGNUM V	x				x			
GROWMARK	PEGASUS					x			
BIO PLANT RESEARCH	PHIRST			x					
GEORGE KELLER	PLH 4000 BRAND								x
POWER SEEDS	POWER 4.2			x					
BIO PLANT RESEARCH	PROLIFIC	x				x			
DELONG	RADIANT	x							
GROWMARK	RELIANCE	x							x
PGI ALFAFLA	REWARD II		x	x					
GROWMARK	ROCKET	x							x
PUBLIC	SARANAC AR					x			x
ALLIED SEED	TRIPLE CROWN		x						

2003 Alfalfa and Forage Grass Entries

* experimental Marketer	Brand-Variety	Freeport				Urbana			Belleville
		00	01	02	03	00	01	02	00 03
OTILIE	TRUMP	x							
OTILIE	TRUMP II				x				
UNITED SUPPLIERS	US A4230	x							
PUBLIC	VERNAL	x	x	x		x	x		x x
BIO PLANT RESEARCH	WETLAND					x			
GROWMARK	WL 319 HQ		x						
GROWMARK	WL 327						x		
GROWMARK	WL 338 SR		x						
GROWMARK	WL 342	x							
GROWMARK	WL 348 AP				x				
GROWMARK	WL 357 HQ			x					x
AGRIPRO	YELDER								x
Perennial Forage Grasses		see below for key							
SCHULTZ TURF & FORAGE	ALBERT OG								x
PUBLIC	BISON HRG								x
GRASSLAND WEST	BRONC OG					x			
IMPROVED FORAGES	BULL TF					x		x	
JENKS	CAS-LG31 OG					x			
PYNE GOULD GUINNESS	CAS-M85 TF					x			
SEED RESERCH OF OREGON	CENTURY OG								x
CEBECO INT'L. SEEDS, INC.	CISI OG 10* OG								x
PUBLIC	CLAIR TM								x
AMPAC	EASTWOOD OG x					x			
EMERALD COMMODITIES, INC.	EC407* PRG								x
ALLIED SEED	EXTEND SB								x
DLF-JENKS	FELINA FS								x
PICKSEED	FESTIVAL TF	x							
SMITH SEED SERVICES	GRAND DADDY PRT .					x		x	
JENKS	HOEDOWN TF					x			
SEED RESERCH OF OREGON	ICON OG								x
AMPAC	K5666 V* TF								x
PUBLIC	KENTUCKY 31 TF .. x					x			x
AMPAC	KOKANEE TF	x							
DLF-JENKS	KORA TF								x
CEBECO INT'L. SEEDS, INC.	LATEMATE OG								x
PUBLIC	LINCOLN SB								x
ALLIED SEED	MARATHON RC								x
INT'L SEEDS	MARTIN 2 TF					x			
PENNINGTON	MAX Q JESUP TF ... x					x			
ALLIED SEED	OG 9701 OG								x
FFR	OG9705G OG	x							
PICKSEED	OKAY OG	x							
PUBLIC	PALATON RC								x
ALLIED SEED	PEAK SM								x
PUBLIC	POTOMAC OG x					x			x
AMPAC	QUANTUM* TF								x
LEWIS SEED CO.	RAD-MA216* TF								x
FFR	SELECT TF	x							
ALLIED SEED	SUMMIT TM								x
SMITH SEED SERVICES	TAKENA OG								x
MOUNTAIN VIEW	TETON TF					x			
PUBLIC	TONGA PRT					x			x
IMPROVED FORAGES	UDDER OG					x			x
LEWIS SEED CO.	VALLY SELECT MX .								x
AMPAC	YORK* SB								x

Key to Grass Species

OG= Orchard grass
 PR= Perennial ryegrass
 SB= Smooth bromegrass
 TF= Tall fescue
 C= Chicory
 TM= Timothy
 PB= Prairie bromegrass
 HRG= Hybrid ryegrass
 PRT= Perennial ryegrass tetraploid
 MX= Mixture
 LH= Lolium hybridum
 RC= Reed canarygrass
 PG= Prairie grass
 FS= Festulolium

Disease and Fall Dormancy Ratings of Alfalfa Varieties in Illinois

Brand-Variety	FD*	BW	PR	AP	VW	FW	AN	PA	SN	RN	LH
631	4	HR	HR	MR	R	HR	R	HR	R	-	S
6410	4	HR	HR	HR	HR	HR	HR	R	-	-	S
204 HYBRID	4	HR	HR	R	R	HR	HR	R	R	-	LR
4 TRAFFIC	4	HR	HR	R	HR	HR	HR	HR	-	-	-
4R37^	3	HR	HR	R	R	HR	HR	-	-	-	R
53H81	3	HR	R	HR	HR	HR	HR	R	-	-	-
53Q60	3	HR	HR	R	R	R	HR	MR	R	MR	S
54H91	4	HR	HR	R	HR	R	HR	R	MR	MR	-
54V46	4	R	HR	R	HR	HR	HR	MR	MR	HR	HR
5454	4	R	HR	LR	MR	HR	HR	R	MR	-	-
6325	3	HR	HR	R	HR	HR	HR	R	-	-	-
6400HT	4	HR	HR	HR	HR	HR	HR	HR	-	-	-
6420	4	HR	HR	R	R	HR	-	R	R	HR	-
645-II^	3	HR	HR	R	R	HR	HR	R	MR	-	S
797 LHR^	3	HR	HR	R	HR	HR	HR	R	-	-	R
9702	4	HR	HR	R	HR	HR	M	R	-	-	-
A 30-06	3	HR	HR	HR	HR	HR	HR	R	-	-	-
ABSOLUTE BRAND^	4	HR	R	-	R	R	HR	R	-	-	-
ABSOLUTE BRAND GZ^	4	HR	HR	R	R	HR	HR	HR	-	-	S
ABSOLUTE BRAND II^	4	HR	HR	R	R	HR	HR	HR	R	-	-
ABSOLUTE III BRAND^	4	HR	HR	HR	R	HR	HR	HR	-	-	S
ABUNDANCE	4	NR	HR	R	R	HR	R	R	R	HR	-
AMERISTAND 403T	4	HR	HR	R	HR	HR	HR	MR	-	-	-
AV 3420	4	HR	HR	HR	R	HR	HR	-	R	-	-
AWESOME^	4	HR	HR	HR	HR	HR	HR	-	-	-	-
C 416^	4	HR	HR	HR	R	HR	HR	-	-	-	-
DEFENSE +EV	3	HR	HR	HR	HR	HR	HR	R	-	-	R
DK 131 HG^	3	HR	HR	R	HR	HR	HR	MR	MR	-	HR
DK 134	3	HR	HR	HR	HR	HR	HR	HR	MR	-	-
DK 140	4	HR	HR	HR	R	HR	HR	R	MR	-	-
DK 141	4	HR	HR	HR	HR	HR	HR	R	MR	-	-
DKA 42-15	4	HR	HR	HR	HR	HR	HR	HR	R	-	-
DKA33-16	3	HR	HR	HR	HR	HR	HR	R	-	-	S
DS320^	4	HR	HR	R	R	HR	HR	-	-	-	-
DS321^	4	HR	HR	R	R	HR	HR	-	-	-	-
DS322^	4	HR	HR	R	R	HR	HR	-	-	-	-
DS323^	4	HR	HR	R	R	HR	HR	-	-	-	-
EXTENDER II	4	HR	HR	HR	HR	HR	HR	HR	MR	MR	S
FEAST +EV	3	HR	HR	HR	HR	HR	R	MR	-	-	-
FQ 315^	3	HR	HR	HR	R	HR	HR	R	R	-	-
FSG 505	4	HR	HR	HR	HR	HR	HR	R	R	R	-
GH 700	4	HR	HR	HR	HR	HR	HR	HR	R	-	-
GOLD LEAF	4	HR	HR	R	R	HR	R	R	R	HR	-
HYBRIFORCE-400	4	HR	HR	MR	R	HR	R	R	R	HR	-
HYBRIFORCE-420 WET^	4	HR	HR	R	R	HR	R	-	HR	HR	-
INTRIGUE	4	HR	HR	HR	HR	HR	HR	HR	R	-	-
MAGNUM V	4	HR	HR	MR	R	HR	R	R	R	MR	-
PEGASUS	4	HR	HR	R	HR	HR	HR	-	R	-	-
PHIRST	4	HR	HR	MR	R	HR	MR	HR	MR	MR	-
PLH 4000 BRAND^	4	HR	HR	HR	R	HR	HR	HR	-	-	HR
POWER 4.2	4	HR	HR	HR	R	HR	R	R	HR	-	R
PROLIFIC	3	HR	HR	R	R	HR	R	R	R	HR	-
RADIANT	4	HR	HR	HR	HR	HR	HR	R	R	-	-
RELIANCE	3	HR	HR	R	HR	HR	HR	R	MR	-	-
REWARD II	4	HR	HR	R	R	HR	R	R	R	HR	S
ROCKET	3	HR	HR	HR	R	HR	HR	R	MR	-	-
SARANAC AR	4	MR	-	-	-	R	HR	S	-	-	LR
TRIPLE CROWN	3	HR	HR	HR	R	HR	HR	HR	MR	-	-
TRUMP^	3	HR	HR	HR	R	HR	HR	R	-	-	-

* See page 8 for abbreviation key.

^ Varieties not reviewed by the Alfalfa Council.

Disease and Fall Dormancy Ratings of Alfalfa Varieties in Illinois

Brand-Variety	FD*	BW	PR	AP	VW	FW	AN	PA	SN	RN	LH
TRUMP II	4	HR	HR	HR	HR	HR	HR	R	R	-	-
US A4230	4	HR	HR	HR	HR	HR	HR	R	R	-	-
VERNAL	2	R	-	-	-	MR	-	-	-	MR	-
WETLAND	3	R	HR	MR	MR	R	R	-	-	-	-
WL 319 HQ	3	HR	HR	HR	HR	HR	HR	HR	MR	-	-
WL 327	4	HR	HR	HR	R	HR	HR	R	R	-	-
WL 338 SR	4	HR	HR	HR	R	HR	HR	R	-	-	-
WL 342	4	HR	HR	HR	HR	HR	HR	HR	R	-	-
WL 348 AP^	4	HR	HR	HR	HR	HR	HR	MR	MR	LR	S
WL 357 HQ	5	HR	HR	HR	HR	HR	HR	HR	-	-	LR
YELDER	3	HR	HR	MR	R	HR	R	R	-	-	-

***FD=Fall Dormancy Rating**

1 = Maverick
2 = Vernal
3 = 5246
4 = Legend
5 = Archer

Disease and Pest Abbreviations

BW= Bacterial Wilt
PR = Phytophthora Root Rot
AP = Aphanomyces
VW =Verticillium Wilt
FW = Fusarium Wilt
AN = Anthracnose
PA = Pea Aphid
SN = Stem Nematode
RN = Root Knot Nematode
LH = Leafhopper

Resistance Class

HR = High Resistance
R = Resistant
MR = Medium Resistance
LR = Low Resistance
S = Susceptible
ND = Not Determined

**%
Resistant
Plants**

>50
31-50
15-30
6-14
0-5

2001 Freeport Alfalfa Variety Trial

Brand-Variety	2003					2002	2-yr	Relative
	5-27	6-27	7-29	8-27	Total	Total	Total	Yield
* Experimental	T DM/A	T DM/A	T DM/A	T DM/A	T DM/A	T DM/A	T DM/A	% Trial Mean
DK134	2.66	2.09	2.03	1.44	8.21	8.32	16.53	110
WL 342	2.49	2.12	1.91	1.46	7.97	8.52	16.49	110
ROCKET	2.45	2.02	1.96	1.48	7.90	8.26	16.17	107
DKA 42-15	2.42	2.01	1.93	1.38	7.74	8.00	15.73	104
6410	2.34	1.98	1.80	1.37	7.48	8.14	15.62	104
RELIANCE	2.38	1.96	1.92	1.40	7.66	7.91	15.57	103
GH 700	2.37	1.96	1.88	1.44	7.65	7.90	15.54	103
ABUNDANCE	2.40	1.85	1.71	1.34	7.30	8.03	15.33	102
US A4230	2.29	1.87	1.86	1.31	7.32	7.96	15.28	101
AV 3420	2.27	1.98	1.96	1.37	7.58	7.67	15.25	101
631	2.31	1.82	1.77	1.36	7.26	7.91	15.17	101
9702	2.38	1.84	1.73	1.29	7.24	7.93	15.17	101
HYBRIFORCE-400	2.35	1.84	1.67	1.32	7.17	7.94	15.11	100
GOLD LEAF	2.28	1.81	1.81	1.31	7.21	7.79	14.99	100
TRUMP	2.31	1.81	1.78	1.26	7.16	7.83	14.99	100
645-II	2.43	1.81	1.70	1.20	7.13	7.72	14.86	99
AMERISTAND 403T	2.27	1.72	1.70	1.22	6.91	7.94	14.85	99
A-30-06	2.29	1.88	1.71	1.22	7.10	7.73	14.83	99
54V54	2.24	1.78	1.74	1.30	7.05	7.74	14.79	98
MAGNUM V	2.34	1.78	1.73	1.18	7.03	7.73	14.76	98
4 TRAFFIC	2.26	1.82	1.74	1.18	6.99	7.50	14.49	96
RADIANT	2.15	1.78	1.71	1.25	6.89	7.55	14.43	96
53Q60	2.24	1.80	1.65	1.29	6.98	7.39	14.36	95
PROLIFIC	2.03	1.67	1.66	1.18	6.54	7.76	14.29	95
ABSOLUTE BRAND	2.07	1.63	1.62	1.13	6.45	7.30	13.74	91
VERNAL	2.12	1.55	1.53	1.08	6.27	6.87	13.14	87
Mean	2.31	1.85	1.78	1.30	7.24	7.82	15.06	
5%_LSD	0.21	0.14	0.14	0.15	0.49	0.54	0.93	
CV(%)	6.39	5.55	5.42	8.24	4.81	4.88	4.38	
MCV(%)	9.00	7.82	7.63	11.61	6.77	6.87	6.17	

Date of Seeding: April 20th, 2001.

Soil Type: Flagg silt loam.

Herbicides: March 24th (Sencor) and August 7th (Select).

Pest Control: May 27th, June 27th and August 7th (Pounce).

Plot Dimensions: 3' x19'.

2002 Freeport Alfalfa Variety Trial

Brand-Variety * Experimental	2003					Relative
	5-27	6-27	7-29	8-27	Total	Yield
	T DM/A	T DM/A	T DM/A	T DM/A	T DM/A	% Trial Mean
WL 319 HQ	2.58	2.02	1.84	1.41	7.85	113
6410	2.48	1.99	1.80	1.31	7.58	109
REWARD II	2.35	1.88	1.65	1.19	7.06	101
54H91	2.36	1.78	1.68	1.14	6.96	100
FEAST + EV	2.32	1.84	1.61	1.16	6.93	99
ABSOLTE II BRAND	2.33	1.83	1.61	1.16	6.93	99
6420	2.32	1.82	1.59	1.16	6.88	99
TRIPLE CROWN	2.33	1.81	1.58	1.13	6.85	98
ABSOLUTE BRAND GZ	2.32	1.81	1.58	1.13	6.84	98
54V54	2.20	1.77	1.62	1.16	6.75	97
WL 338 SR	2.22	1.74	1.57	1.19	6.71	96
VERNAL	2.32	1.65	1.38	0.92	6.26	90
Mean	2.34	1.83	1.63	1.17	6.96	
5%_LSD	0.19	0.12	0.12	0.12	0.43	
CV(%)	5.66	4.48	5.23	6.95	4.25	
MCV(%)	8.14	6.44	7.53	9.99	6.11	

Date of Seeding: April 15th , 2002.

Soil Type: Flagg silt loam.

Herbicides: March 24th (Kerb) and August 7th (Select).

Pest Control: May 27th, June 27th and August 7th (Pounce).

Plot Dimensions: 3' x 19'.

2003 Freeport Alfalfa Variety Trial

Brand-Variety	2003				Relative
	6/27	7/29	8/27	Total	Yield
* Experimental	T DM/A	T DM/A	T DM/A	T DM/A	% Trial Mean
WL 357 HQ	1.59	1.71	1.07	4.36	119
HYBRIFORCE-420 WET	1.39	1.61	0.97	3.97	109
WL 348 AP	1.37	1.68	0.91	3.96	108
54H91	1.49	1.51	0.83	3.83	105
54V46	1.30	1.56	0.95	3.81	104
6420	1.41	1.43	0.89	3.73	102
6325	1.42	1.54	0.76	3.72	102
DS322*	1.36	1.44	0.89	3.69	101
ABUNDANCE	1.25	1.54	0.89	3.67	100
DKA33-16	1.31	1.50	0.86	3.67	100
ABSOLUTE III BRAND	1.34	1.48	0.84	3.66	100
TRUMP II	1.33	1.49	0.81	3.64	99
PHIRST	1.32	1.44	0.86	3.63	99
204 HYBRID	1.33	1.44	0.86	3.62	99
REWARD II	1.27	1.43	0.86	3.56	97
DS323*	1.23	1.47	0.84	3.55	97
POWER 4.2	1.28	1.41	0.85	3.53	97
6400HT	1.27	1.48	0.76	3.51	96
DS321*	1.25	1.39	0.84	3.47	95
FEAST +EV	1.30	1.40	0.71	3.41	93
VERNAL	1.27	1.23	0.77	3.26	89
DS320*	1.03	1.30	0.84	3.17	87
Mean	1.32	1.47	0.86	3.65	
5%_LSD	0.22	0.27	0.17	0.60	
CV(%)	11.89	12.87	13.80	11.57	
MCV(%)	16.81	18.18	19.49	16.35	

Date of Seeding: April 25th , 2003.

Soil Type: Flagg silt loam.

Herbicides: April 23rd (Treflan) and August 7th (Select).

Pest Control: May 27th, June 27th and August 7th (Pounce).

Plot Dimensions: 3' x 19'.

2000 Urbana Alfalfa Variety Trial

Brand-Variety	2003					2002	2001	3-yr	Relative
	5-22	6-20	7-22	8-22	Total	Total	Total	Total	Yield
	T DM/A	T DM/A	T DM/A	T DM/A	T DM/A	T DM/A	T DM/A	T DM/A	% Trial Mean
* Experimental									
MAGNUM V	3.32	1.95	2.06	1.72	9.05	9.29	7.66	26.00	109
GOLD LEAF	3.16	1.91	2.03	1.73	8.82	9.00	7.15	24.96	105
645-II	3.20	1.84	2.07	1.66	8.77	8.90	7.02	24.69	104
INTRIGUE	2.99	1.95	2.12	1.70	8.75	9.01	6.87	24.63	104
54V54	2.81	1.86	2.11	1.78	8.56	8.87	7.06	24.48	103
631	2.92	1.83	2.00	1.59	8.34	8.87	7.10	24.30	102
6410	2.95	1.76	2.00	1.59	8.29	8.69	7.05	24.02	101
53Q60	2.81	1.80	1.96	1.61	8.18	8.76	6.84	23.78	100
WETLAND	2.85	1.72	1.94	1.56	8.07	8.74	6.79	23.59	99
53H81	2.70	1.67	1.95	1.55	7.86	8.52	6.59	22.97	97
SARANAC AR	2.48	1.47	1.55	1.36	6.86	7.64	6.44	20.94	88
VERNAL	2.73	1.44	1.68	1.23	7.08	7.37	6.21	20.66	87
Mean	2.91	1.77	1.95	1.59	8.22	8.64	6.90	23.75	
5%_LSD	0.47	0.18	0.20	0.13	0.78	0.53	0.48	1.41	
CV(%)	11.24	7.12	7.09	5.72	6.58	4.25	4.87	4.13	
MCV(%)	16.17	10.25	10.20	8.24	9.47	6.11	7.01	5.95	

Date of Seeding: April 1st, 2000.

Soil Type: Drummer-Flanagan silty-clay loam.

Herbicides: March 12th (Sencor) and August 8th (Select).

Pest Control: June 24th and August 8th (Pounce).

Plot Dimensions: 3' x 19'.

2001 Urbana Alfalfa Variety Trial

Brand-Variety	2003					2002	2-yr	Relative
	5-21	6-20	7-22	8-22	Total	Total	Total	Yield
* Experimental	T DM/A	T DM/A	T DM/A	T DM/A	T DM/A	T DM/A	T DM/A	% Trial Mean
DKA 42-15	3.82	2.28	2.66	2.22	10.97	9.48	20.45	107
PEGASUS	3.84	2.22	2.44	1.90	10.39	9.69	20.08	105
54V54	3.87	2.15	2.43	2.10	10.55	9.37	19.91	104
6410	3.65	2.25	2.45	2.04	10.39	9.37	19.76	103
WL 327	3.75	2.06	2.34	2.00	10.15	9.49	19.63	103
PROLIFIC	3.50	2.15	2.25	2.09	9.98	9.53	19.51	102
631	3.53	2.11	2.32	1.97	9.93	9.50	19.43	102
HYBRIFORCE-400	3.74	2.07	2.20	1.87	9.88	9.46	19.34	101
AMERISTAND 403T	3.73	2.04	2.40	1.89	10.05	9.27	19.32	101
53Q60	3.59	2.04	2.32	1.99	9.93	9.25	19.18	100
ABUNDANCE	3.80	2.10	2.21	1.84	9.95	9.17	19.11	100
EXTENDER II	3.69	2.07	2.23	1.95	9.93	9.05	18.98	99
ABSOLUTE BRAND II	3.51	2.10	2.30	1.94	9.84	9.04	18.88	99
645-II	3.32	2.00	2.17	1.87	9.36	9.34	18.70	98
797 LHR	3.52	1.96	2.10	1.75	9.33	9.02	18.35	96
ABSOLUTE BRAND GZ	2.78	2.03	2.29	1.91	9.01	9.01	18.02	94
VERNAL	3.47	1.85	1.80	1.31	8.42	8.07	16.49	86
Mean	3.59	2.09	2.29	1.92	9.88	9.24	19.12	
5%_LSD	0.61	0.12	0.15	0.14	0.69	0.63	1.04	
CV(%)	11.95	4.01	4.66	5.19	4.92	4.80	3.81	
MCV(%)	16.99	5.70	6.63	7.38	7.00	6.82	5.41	

Date of Seeding: April 3rd , 2001.

Soil Type: Drummer-Flanagan silty-clay loam.

Herbicides: March 12th (Sencor) and August 8th (Select).

Pest Control: June 24th and August 8th (Pounce).

Plot Dimensions: 3' x 19'.

2000 Belleville Alfalfa Variety Trial

Brand-Variety	2003					2002	2001	3-yr	Relative
	5-15	6-15	7-15	8-15	Total	Total	Total	Total	Yield
	T DM/A	T DM/A	T DM/A	T DM/A	T DM/A	T DM/A	T DM/A	T DM/A	% Trial Mean
* Experimental									
54V54	2.37	1.18	0.96	0.75	5.25	5.66	7.08	17.99	106
RELIANCE	2.70	1.16	0.91	0.76	5.53	5.53	6.86	17.92	105
DK 140	2.65	1.11	0.90	0.68	5.33	5.56	6.86	17.75	104
ROCKET	2.32	1.20	0.89	0.74	5.15	5.57	6.93	17.64	103
A 30-06	2.35	1.12	0.94	0.69	5.10	5.50	6.80	17.39	102
53H81	2.46	0.99	0.80	0.69	4.94	5.26	6.91	17.11	100
FQ 315	2.63	1.01	0.85	0.68	5.17	5.05	6.83	17.05	100
ABSOLUTE BRAND	2.46	1.03	0.82	0.62	4.92	5.40	6.69	17.01	100
53Q60	2.45	1.04	0.90	0.68	5.07	5.07	6.85	16.99	100
SARANAC AR	2.52	0.98	0.78	0.64	4.92	5.31	6.68	16.91	99
VERNAL	2.77	0.89	0.86	0.70	5.22	5.03	6.60	16.85	99
AWESOME	2.15	0.92	0.74	0.56	4.37	5.44	7.00	16.80	99
C 416	2.47	0.96	0.80	0.55	4.77	5.29	6.58	16.64	98
DK 141	2.51	0.93	0.79	0.59	4.82	5.11	6.67	16.60	97
ABSOLUTE BRAND GZ	2.32	0.95	0.83	0.70	4.80	5.00	6.72	16.52	97
FEAST+EV	2.26	0.98	0.82	0.59	4.65	5.18	6.53	16.35	96
YIELDER	2.18	1.06	0.91	0.65	4.79	5.06	6.50	16.34	96
Mean	2.45	1.03	0.85	0.66	4.99	5.29	6.77	17.05	
5%_LSD	0.46	0.17	0.13	0.12	0.67	0.52	0.44	1.28	
CV(%)	13.14	11.59	10.86	12.65	9.39	6.86	4.56	5.30	
MCV(%)	18.69	16.47	15.43	17.98	13.35	9.76	6.48	7.53	

Date of Seeding: April 3rd, 2000.

Soil Type: Alford silt loam.

Herbicides: March 26 (Sencor), June 23 and July 22 (Select).

Pest Control: April 17, June 4, July 1 and July 28 (Warrior).

Plot Dimensions: 3' x 19'.

2000 Belleville Alfalfa Variety Trial Without Insecticides

Brand-Variety	2003					2002	2001	3-yr	Relative
	5-15	6-15	7-15	8-15	Total	Total	Total	Total	Yield
	T DM/A	T DM/A	T DM/A	T DM/A	T DM/A	T DM/A	T DM/A	T DM/A	% Trial Mean
* Experimental									
53H81	2.68	0.97	0.89	0.85	5.40	5.32	7.18	17.90	106
4R37*	2.51	0.94	0.84	0.78	5.08	5.23	7.36	17.66	104
DK 131 HG	2.54	0.90	0.91	0.78	5.12	5.11	7.09	17.33	102
DEFENSE+EV	2.39	0.89	0.88	0.77	4.94	5.07	7.02	17.03	100
VERNAL	2.55	0.93	0.85	0.80	5.13	4.90	6.25	16.27	96
SARANAC AR	2.22	0.87	0.75	0.71	4.54	4.67	6.29	15.50	91
Mean	2.48	0.92	0.85	0.78	5.03	5.05	6.86	16.95	
5%_LSD	0.40	0.13	0.18	0.11	0.72	0.40	0.51	1.46	
CV(%)	10.59	9.33	13.73	9.28	9.44	5.21	4.93	5.73	
MCV(%)	15.96	14.06	20.69	13.99	14.22	7.85	7.44	8.63	

Date of Seeding: April 3rd, 2000.

Soil Type: Alford silt loam.

Herbicides: March 26 (Sencor), June 23 and July 22 (Select).

Plot Dimensions: 3' x 19'.

2003 Belleville Alfalfa Variety Trial

Brand-Variety	2003	Relative
	8/15	Yield
* Experimental	T DM/A	% Trial Mean
HYBRIFORCE-420 WET	0.95	116
54H91	0.91	110
ABSOLUTE III BRAND	0.85	103
PLH 4000 BRAND	0.83	101
WL 357 HQ	0.83	100
VERNAL	0.81	98
FSG 505	0.78	94
ABSOLUTE GZ BRAND	0.74	90
54V46	0.72	87
Mean	0.82	
5%_LSD	0.14	
CV(%)	11.45	
MCV(%)	16.71	

Date of Seeding: May 15th, 2003.

Soil Type: Alford silt loam.

Herbicides: May 15 (Treflan), June 23 and July 22 (Select).

Pest Control: April 17, June 4, July 1 and July 28 (Warrior).

Plot Dimensions: 3' x 19'.

2000 Freeport Grass Variety Trial

Brand-Variety		2003					2002	2001	3-yr	Relative
		5-27	6-27	7-29	8-27	Total	Total	Total	Total	Yield
* Experimental	Species*	T DM/A	T DM/A	T DM/A	T DM/A	T DM/A	T DM/A	T DM/A	T DM/A	% Trial Mean
FESTIVAL	TF	2.51	1.84	1.79	0.69	6.81	5.72	6.67	19.20	121
KENTUCKY 31	TF	2.29	1.63	1.66	0.73	6.30	4.95	6.97	18.21	115
SELECT	TF	2.28	1.48	1.53	0.62	5.91	5.18	6.53	17.61	111
MAXQ JESUP	TF	2.35	1.62	1.66	0.72	6.33	4.70	6.25	17.27	109
KOKANEE	TF	1.86	2.01	1.39	0.48	5.74	4.63	5.59	15.95	101
OG9705G	OG	1.82	1.48	1.56	0.56	5.41	4.79	5.12	15.32	97
OKAY	OG	2.20	1.52	1.41	0.38	5.50	4.38	4.98	14.86	94
POTOMAC	OG	1.89	1.54	1.43	0.45	5.32	4.50	5.04	14.85	94
EASTWOOD	OG	0.92	1.14	1.17	0.37	3.59	3.21	2.75	9.54	60
Mean		2.05	1.57	1.51	0.55	5.67	4.65	5.51	15.84	
5%_LSD		0.41	0.32	0.27	0.14	0.91	0.79	0.90	2.21	
CV(%)		13.67	14.04	12.30	17.42	11.03	11.63	11.31	9.60	
MCV(%)		19.83	20.36	17.85	25.27	16.00	16.88	16.41	13.93	

Date of Seeding: April 4th, 2000.

¹ see page 7 for key

Soil Type: Flagg silt loam.

Fertilization: 50lbs N 30 days before harvest.

Plot Dimensions: 3' x 19'.

2000 Urbana Grass Variety Trial

Brand-Variety		2003					2002	2001	3-yr	Relative
		5-21	6-20	7-21	8-22	Total	Total	Total	Total	Yield
* Experimental	Species*	T DM/A	T DM/A	T DM/A	T DM/A	T DM/A	T DM/A	T DM/A	T DM/A	% Trial Mean
TETON	TF	2.75	1.32	1.21	1.29	6.57	7.24	5.47	19.28	122
HOEDOWN	TF	2.61	1.05	1.05	1.39	6.10	7.13	5.77	19.00	120
BULL	TF	2.76	1.15	1.23	1.45	6.59	6.79	5.37	18.75	119
KENTUCKY 31	TF	2.37	1.25	1.12	1.30	6.04	6.78	5.21	18.03	114
MARTIN 2	TF	2.60	1.30	1.05	1.44	6.38	6.31	4.54	17.23	109
POTOMAC	OG	2.67	1.25	1.08	0.95	5.94	5.91	4.66	16.51	105
MAXQ JESUP	TF	2.33	1.15	1.03	1.20	5.71	5.53	4.99	16.23	103
BRONC	OG	2.69	1.24	1.19	0.85	5.97	6.08	4.05	16.10	102
UDDER	OG	2.82	1.00	0.95	0.96	5.73	5.96	4.14	15.82	100
CAS-M85	TF	2.50	0.83	1.07	1.14	5.55	5.57	4.52	15.63	99
EASTWOOD	OG	1.85	1.06	0.94	0.87	4.72	4.65	3.35	12.72	81
CAS-LG31	OG	1.65	0.99	1.05	0.84	4.53	4.44	3.69	12.66	80
GRAND DADDY	PRT	1.39	0.94	0.93	0.74	4.00	3.93	2.50	10.43	66
TONGA	PRT	1.06	0.76	0.78	0.95	3.53	3.40	2.07	8.99	57
Mean		2.31	1.10	1.07	1.11	5.59	5.77	4.41	15.78	
5%_LSD		0.63	0.25	0.29	0.22	0.95	1.05	1.23	2.64	
CV(%)		18.99	15.73	18.73	14.13	11.87	12.73	19.45	11.73	
MCV(%)		27.10	22.45	26.73	20.17	16.94	18.17	27.76	16.74	

Date of Seeding: April 1st, 2000.

¹ see page 7 for key

Soil Type: Drummer-Flanagan silty-clay loam.

Fertilization: 50lbs N 30 days before harvest.

Plot Dimensions: 3' x 19'.

2002 Urbana Grass Variety Trial

Brand-Variety	Species*	2003					Relative
		5-21	6-20	7-21	8-22	Total	Yield
* Experimental		T DM/A	T DM/A	T DM/A	T DM/A	T DM/A	% Trial Mean
PALATON	RC	3.39	1.71	1.20	1.17	7.47	122
ALBERT	OG	3.68	1.56	1.22	0.90	7.36	120
CENTURY	OG	3.68	1.33	1.16	1.08	7.25	118
PEAK	SB	3.79	1.00	0.99	1.12	6.90	112
KENTUCKY 31	TF	3.66	1.13	1.01	1.06	6.85	111
OG 9701	OG	3.18	1.45	1.16	1.01	6.79	110
QUANTUM*	TF	3.37	1.14	1.03	1.25	6.78	110
MARATHON	RC	2.92	1.67	1.10	1.07	6.76	110
RAD-MA216*	TF	3.41	1.11	1.01	1.21	6.73	109
LINCOLN	SB	3.83	0.85	1.14	0.89	6.71	109
POTOMAC	OG	3.05	1.59	1.05	1.00	6.70	109
BULL	TF	3.25	1.30	1.03	1.11	6.69	109
FELINA	FS	3.28	1.19	1.14	1.03	6.64	108
KORA	TF	3.00	1.36	1.06	1.16	6.57	107
LATEMATE	OG	3.33	1.40	0.97	0.86	6.55	107
EXTEND	OG	2.97	1.43	1.11	0.92	6.43	105
TAKENA	OG	3.18	1.34	0.96	0.89	6.37	104
ICON	OG	2.83	1.48	1.11	0.95	6.36	104
UDDER	OG	2.85	1.43	1.03	0.88	6.18	101
YORK*	SB	3.15	1.08	0.91	1.03	6.17	100
CISI OG 10*	OG	3.06	1.17	0.82	0.84	5.89	96
CLAIR	TM	3.17	0.72	0.75	1.12	5.75	94
K5666 V*	TF	2.84	0.96	0.87	0.96	5.64	92
SUMMIT	TM	2.16	0.92	0.85	0.91	4.83	79
VALLY SELECT	BL	2.07	1.15	0.83	0.55	4.60	75
BISON	HRG	0.97	1.35	1.13	1.08	4.53	74
GRAND DADDY	PRT	1.94	1.17	0.76	0.56	4.43	72
TONGA	PRT	1.64	1.11	0.78	0.80	4.33	71
EC407*	PRG	1.70	0.96	0.79	0.52	3.96	64
Mean		2.94	1.24	1.00	0.96	6.14	
5%_LSD		0.60	0.23	0.16	0.30	0.87	
CV(%)		14.48	12.91	11.33	22.38	10.05	
MCV(%)		20.37	18.15	15.93	31.47	14.14	

Date of Seeding: April 11th, 2002.

¹ see page 7 for key

Soil Type: Drummer-Flanagan silty-clay loam.

Fertilization: 50lbs N 30 days before harvest.

Plot Dimensions: 3' x 19'.

UNIVERSITY OF ILLINOIS-URBANA



3 0112 071085861

UNIVERSITY OF ILLINOIS-URBANA



3 0112 048280819